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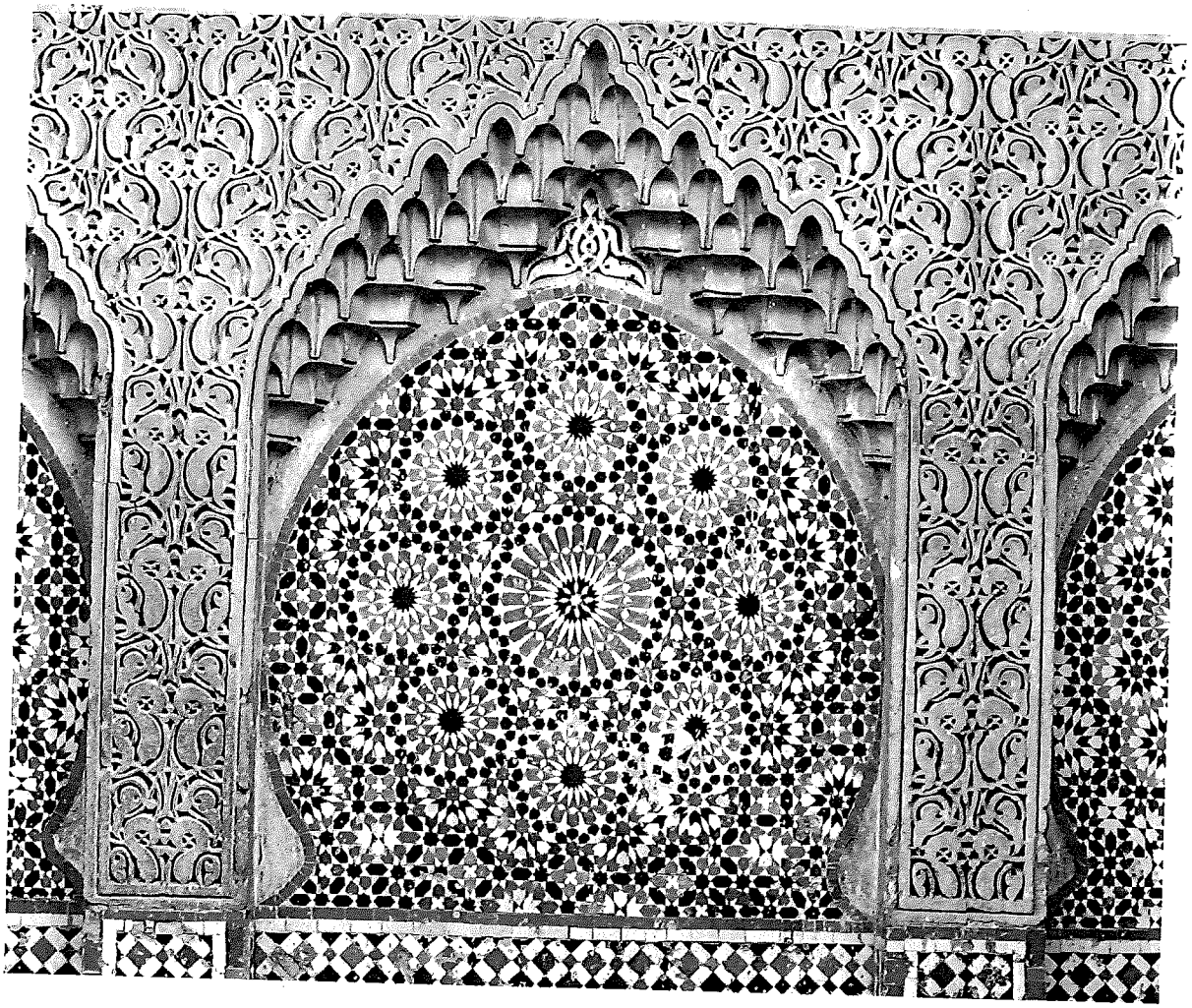

Edited by Richard C. Taylor and Luis Xavier López-Farjeat

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HUMAN KNOWLEDGE AND SEPARATE INTELLECT

Olga Lizzini

Introduction

Medieval Islamic theories of cognition generally posit as the principle of human rationality—itself described as a faculty and pure potency (*quwwa*)—an intellect (*'aql*) which is "separate" (*mufāriq*) from both matter and the human soul. This intellect is a descendant of the productive (*poietikos*) intellect in Aristotle's *De anima* (III, 5, 430a10–19), which is separate (*choristos*), impassible (*apathes*), unmixed (*amighes*) and, in its essence, act (*te ousia on energeia*). Exegetes of Late Antiquity (e.g. Alexander of Aphrodisias) had already compared it to the faculty that, in *De generatione animalium* (736b27–29), Aristotle describes as coming to the soul "from without" (*thurathen*). In addition to making use of this Aristotelian nucleus, Medieval Islamic theories of cognition elaborated the Neoplatonic elements they found particularly in the texts, often ascribed to Aristotle, of the Arabic Plotinus and Proclus: thus in al-Fārābī and Ibn Sīnā, for example—the two authors on whom this chapter is primarily focused—the transcendence ascribed to the separate intellect can be explained by the theory of emanation that is the foundation of their metaphysics.

Interpreting Aristotle

Roughly speaking, one can state that all the thinkers of classical Islam—with the exception of Ibn Rushd, who went so far as to separate even the intellect which is called "material" from the human soul (see R. C. Taylor in this title)—explain man's rational activity by means of the notion of a separate intellect that is always *in actu*, whereas human intellect is designed as a faculty that, from an initial state of absolute potency, proceeds to self-actualization through cognitive activity itself (Jolivet 2006). The Aristotelian productive intellect, "without which there is nothing that thinks" (*De anima*, 430a25), is interpreted not as a part of the human soul, but as a substance separate from it and hence "immortal and eternal." Human intellection—i.e. rationality, logical ability, knowledge, but also prophecy, which Arabic-speaking thinkers generally conceived as an extraordinary state of excellence of human cognitive faculties—is

therefore often seen as the result of a contact, or more literally a "conjunction" (*ittiṣāl*) with this separate intellect. While the latter is rational and intellectual in an absolute sense, human intellect attains rationality and intellection through a gradual process which, although its description varies from author to author, always entails both the elaboration and simultaneous surpassing of experience and sense-related knowledge, and also connection or, more generally, communication with the separate intellect. It is this communication that allows the human intellect to attain a knowledge which is defined, in Aristotelian terms, as necessary and universal (*Posterior Analytics* I, 4–6). Thus, the separate and transcendent intellect takes on two essential meanings: it is "active" both because it always actualizes its intellection—it is always absolutely *in actu*—and because, by virtue of its own intellection, it makes human intellection actual. In so far as it is absolutely in act (*bi-l-fi'l*), the separate intellect is therefore "active" or "always active" (*fa"āl*) and "agent" (*fā'il*).

Immateriality and hence spirituality are the properties shared by the separate active intellect and the potential intellect. Aristotle had already defined the potential intellect as impassible (*apathes*; *De anima* 429a15), suggesting that it was reasonable to conceive it as unmixed with the body (*De anima* 429a24–25). In so far as it is absolutely potential, the possible intellect, however, is analogous to first matter, with which it shares absolute indetermination and the capacity to receive (and in Aristotelian terms even to be) *all* forms. Al-Fārābī, Ibn Sīnā and even Ibn Rushd (for whom, however, the potential intellect, while related to man, is not "of man" in a carefully defined way), in fact, interpret the absolute potential intellect in terms of materiality and, adopting a locution used by Alexander of Aphrodisias, call the intellect in potency (*al-'aql bi-l-quwwa*) "the material intellect" (*al-'aql al-hayūlānī*). Its ultimate perfection consists in being filled with all the forms it can actually receive, the same forms the "active" or "always active" intellect (*al-'aql al-fa"āl*) always thinks. Once it has attained its perfection, the human intellect becomes, in the vocabulary of Ibn Sīnā, an "intellectual" (*'aqlī*) world parallel to the real world: the ultimate perfection of the rational soul consists in becoming an intellectual world in which the form or the intelligible (*ma'qūl*) order of the whole bears the imprint of the good that is proper to it (Avicenna 1960: 425, 15–426, 4; cf. 428, 9–11; Avicenna 2005: 350; 352–53). At least two problems, which are interrelated, are implied by such a vision. First, it is clear that, despite being conceived in itself as a potency, the human intellect should also be identified as the subject of thought: in other words, it should be identifiable with the human being. Authors such as Ibn Sīnā, who ascribed potentiality to the human intellect, have the problem of defining it as a substance (*jawhar*) as well. Thus, turning again to Ibn Sīnā, the real name of the soul, as far as its substance is considered, is "intellect" (Avicenna 1952: 53, 11–13; Michot 1997: 241) and the identity of a human being is defined in essentially intellectual terms. This is illustrated by the so-called flying-man argument: let us imagine a man created whole in an instant, his sight veiled so that he cannot directly observe the external world and his body afloat in air or in a void, his limbs extended and not touching his body or one another. Now, if we ask what this man would be capable of knowing and asserting with certainty, we must answer that he would know his self as something that exists. No reference to the existence of any of his exterior or interior parts or

anything external would be implied by this assertion. The self whose existence the flying man would assert is therefore not his body and its parts: the soul must be conceived as something that is not the body—nor in fact any body—and hence immaterial or intellectual (Avicenna 1959: 15, 16–17, 17; 255, 1–257, 17, 1957–1960: II, 343–45, 345–58, 1969: 140–144; Pines 1955; Marmura 1986; Hasse 2000; cf. Black 2008).

The two-fold and partly aporetic conception of the intellect as a faculty and a substance is reflected in what has been defined (Jolivet 1995) as the essential "diffraction," that is, dichotomy of the term, which is translated—first in Latin and then in other European languages—in a twofold manner: it is intellect (*intellectus*) as a faculty and intelligence (*intelligentia*) as a (separate) substance. In fact, the Arabic word *'aql* (like the Greek *nous*) has a dual reference: it indicates both a power or a faculty (*quwwa*: the same term used to indicate potency) and (problematically) a substance in the case of human beings, and a substance (always in act) in the world of separate intelligences: indeed, one should add to the separate intellect involved in human intellection the intelligences that are both involved in the pattern of emanation and in charge of celestial motion. The problem of defining the human being as the subject of thought is also, although in different terms, in Ibn Rushd. In his *Long Commentary on De anima*, he seems to conceive two subjects of thought: one is a principle of movement, the subject by virtue of which intelligibles are true and belong to each thinking human being; the other is a substratum of the intelligible, the subject by virtue of which intelligibles exist and the universal, eternal "material" intellect (Averroes 1953: 400, 2009: 316; lix–lxi).

Secondly, the position of the separate intellect as the cause of human intellection poses the fundamental problem of how to interpret the kind of causality it expresses. Is it an efficient causality? In that case, the human intellect is acted upon by the principle and cannot truly be considered an active element in the process of intellection (Rahman 1958; Davidson 1972, 1992; Taylor 1996). Or is it merely an exemplary cause? Then the human intellect would find in the divine separate intellect the model of an intellection that it would attain in an essentially autonomous way (abstraction could in fact be attributed to the human intellect; see Gutas 2001; Hasse 2001). Or is it, instead, a formal causality? This is how Ibn Rushd seems to solve the problem in his *Long Commentary on De anima*: if the material intellect is the first perfection of man, the agent intellect is a form in us (*ṣura fī-nā*; *forma in nobis* and *forma nobis*; e.g. Averroes 1953: 485, 500; Averroes 2009: 386, 399; Taylor 2005).

The solution clearly involves an interpretation of the philosophical system as a whole and cannot depend on the examination of epistemology alone. In the theories of emanation devised by al-Fārābī and Ibn Sīnā, for example, the idea of knowledge as a reception of forms, harking back to Aristotle (*De anima* 429a15; 429a28–29), leads to interpreting the cognitive process as a bestowal of intellectual forms (or intelligible impressions: *rusūm al-ma'qūlāt*, al-Fārābī 1985: 199), a bestowal from the separate active intellect to the potential, receptive human intellect. Exactly as first matter receives the forms of things, so the material (human) intellect would receive the intellectual forms—the intelligibles (*al-ma'qūlāt*)—that correspond to things when they are abstracted from their materiality. In at least one passage (Avicenna 1959:

247, 8), Ibn Sīnā speaks of "a principle which bestows intellect" (*al-mabda' al-wāhib li-l-'aql*; *principium dans intellectum*), a locution which is comparable to the rare *wāhib al-ṣuwar* (*dator formarum* in Latin) he uses in *Ilāhiyyāt* IX, 5 (Avicenna 1960: 413, 11, but cf. 411, 9, VI, 2, 265, 4) in an ontological sense. Both expressions seem to refer to the agent intellect, which is at once part and vehicle of the divine flow; they indicate "a third thing" (Avicenna 1960: 81, 14) that, while separate from the sublunary world and from the human soul, is responsible for the actualization of them both (Davidson 1972, 1992; Rahman 1958; cf. Hasse 2000, 2001). Moreover, unlike al-Fārābī, Ibn Sīnā views the separate agent intellect as the immediate principle of the forms that ontologically constitute the sublunary world. The identification of the agent intellect with the *dator formarum* was then made by al-Ghazālī and Ibn Rushd and, in their wake, by several medieval and modern authors. Some of them indicated it with the term *cholcodea*, borrowed from astronomy and in any case obscure (Porro 2006; Hasse 2011). The theory of cognition is therefore seen as related to both ontology and the philosophy of nature.

Another important element related to the idea of the separate intellect is the image of light. Aristotle had already associated the role of the agent intellect with that of light (*De anima* 430a15ff.). Alexander of Aphrodisias, having distinguished the active intellect from the human capacity of understanding, had identified that intelligence with the God of Lambda (*De anima* 89, 16–19), interpreting the metaphor of light as like the bright and powerful sun which radiates light. Themistius also uses the image of light to explain how forms are abstracted from material objects: the active intellect, which is something within the human soul (CAG 5.3. 103), both leads the potential human intellect to actuality and illuminates potential objects of thought, rendering them actually intelligible (CAG 5.3. 98–9; Davidson 1972: 123). The image of intellect as the sun or main source of light can thus be found in authors such as al-Fārābī, Ibn Sīnā and Ibn Rushd. Sometimes, but not always, this image betokens the theory of emanation. In fact, Ibn Sīnā uses this image to explain knowledge, conveying the idea of an emanation or a bestowal of forms—the agent intellect illuminates the human intellect (Avicenna 1959: 234, 14–236, 2; Avicenna 1985: 395–96; also Avicenna 1963); al-Fārābī inserts it in a more abstraction-oriented theory of cognition: the agent intellect has what Taylor defines as a "cooperating causality" which allows the human intellect to attain the power of abstraction and consequently the understanding of intelligibles (Taylor 2006).

In sum, the Arabic theories of intellect—although with different modulations (especially in the case of the theories of Ibn Bājja and Ibn Rushd, for which see R. C. Taylor's chapter in this title)—are essentially characterized by transcendent causality, which is ascribed to the agent intellect in a universe in which intellection and causation ultimately correspond: the Neoplatonic sources —already reinterpreted and transformed, probably within a monotheistic context (Endress 1973; Taylor 1986; d'Ancona 1995; Adamson 2003)—led Arabic thinkers to incorporate the function of active intellect into a context broader than that of epistemology. In fact, as should be clear, while the origin of the idea of a separate agent intellect must be attributed to Aristotle's *De anima*, its overall interpretation depends on Late Ancient and Neoplatonic exegeses of this work. It is on their authors—and particularly on Alexander of Aphrodisias, Plotinus in the *Ps.-Theology of Aristotle*, Proclus in the *Liber de Causis*,

Themistius and Philoponus—on whom the thinkers of Classical Islam depend. Late Ancient and Neoplatonic sources led Arabic authors to consider intellection within the framework of the theory of emanation and to connect the active or productive intellect of *De Anima* III, 5 with the cosmology of *Metaphysics* XII and *De caelo*, integrated with the cosmology of Ptolemy's work. For instance, the separate intellect is usually identified, as in Late Antiquity, with a divine or angelic entity, which is also significant as far as eschatology and the theory of revelation are concerned. Thus it is probably after the example of some Neoplatonic elaboration (al-Fārābī 1985: 363; Vallat 2004) that, in the so-called *Perfect State* and in *The Political Regime* or *Treatise on the Principles of Beings*, al-Fārābī identifies celestial intelligences, and among them the active intellect, with spiritual entities (*al-rūḥāniyyūn*), traditionally called "angels" (*al-malā'ika*), an identification that can also be found in Ibn Sīnā (e.g. *al-Ilāhiyyāt*, 9. 2, 10. 1, 10. 2, 10. 3; Avicenna 1960: 391, 12; 435, 7, 8; 442, 3, 13; 444, 18; 446, 1). In other words, Arabic theories of cognition, as has been noted, "integrate the active intellect and the human potential intellect into larger cosmic schemes" (Davidson 1992: 4) which explain not only knowledge, but also, more generally, the God–human relationship. The transcendent character ascribed to the agent intellect lends qualities to its conjunction with the potential human intellect that lie outside the field of epistemology. The very principles that explain the cognitive process also account for all the phenomena that express what is seen as the privileged contact of human beings with the celestial region: prophecy, eschatology, and angelology. Although the primary function of the active intellect is to explain truth and the universality of knowledge, it is relevant not only to the human intellect and its development in terms of knowledge (and in ethics and eschatology), but also to metaphysics, cosmology, and natural science. Furthermore, by reconciling the Neoplatonic theory of communication with the divine with what they considered to be the Aristotelian doctrine of nature, Arabic authors also explain some specific modes of imaginative knowledge: by making use of the notion of emanation or of the illuminating separate intellect together with the doctrine of *Parva naturalia*—in particular *De Sensu et sensibili*, *De memoria et reminiscentia*—in their elaborated Arabic version, in which explicit reference to a transcendent source of dreams and visions is made—they in fact explain inspirational dreams, visions and prophecy (Pines 1974; Ruffinengo 1997; Hansberger 2008, 2010; cf. Streetman 2008). The separate intellect is actually part of the divine or celestial sphere: for human beings the actualization of the intellect means not only the attainment of their personal perfection and hence true happiness, but also the entrance into a separate and consequently divine sphere of life. Ibn Sīnā, for example, calls the highest form of conjunction with the separate intellect, which accounts for both prophecy and the philosopher's exceptional knowledge, "sacred intellect" (*al-'aql al-qudsī*, Avicenna 1959: 248). The degrees of actualization of the human intellect (which differ markedly according to which of the various authors describes them) are thus significant in so far as they literally mark a *progression* leading human beings from the imperfect sublunary dimension, to which their lives belong, to the horizon of perfection—often described, once again in terms which evoke Aristotle's distinctions (see e.g. *Nicomachean Ethics*, 10, 7, 1177b30), as angelic or divine—to which they aspire. In Ibn Sīnā's vocabulary, the human interpretation of the world is intellectual (*'aqlī*) or rational (*nuṭqī*) in so far as it is comparable to that of the

supernal world, and it is often described as mental (*ḏihnī*) to the extent that it is simply human. Whereas the intellect indicates human beings' participation in the divine, purely intellectual world, the mind (*ḏihn*) comprises not only the intellect but, thanks to the mediation of the imaginative and estimative faculties, the senses as well (Lizzini 2005).

The Philosophical Context

Arabic epistemological theories cannot be explained only on the basis of their sources. To the historical consideration—according to which any philosophical doctrine is, in this context, also an exegesis of the Aristotelian text, and, as such, part of a tradition—a fundamental theoretical consideration should be added: the idea of a separate and celestial intellect is in fact a guarantee of truth in the presence of the mutability of natural experience and the perishable character of man. The Aristotelian notion of knowledge, to which truth, necessity and universality are ascribed, implies a principle of absoluteness and universality that cannot coincide with knowledge gained through the senses. The requirements of Aristotelianism are reconciled with the Neoplatonic tenets that inspired Arabic theories of cognition and more generally Arabic philosophy: if reality is formal and intellectual, only intellect can truly know it. Therefore, the celestial intellectual world is at once the source and the best, indeed the perfect way of being and knowing. Or, as Ibn Sīnā states in his *Metaphysics*, the *Kitāb al-Ilāhiyyāt* (Avicenna 1960: IX, 5: 410, 14–17), in the celestial intelligences there is "the active designing [or design] of the forms" (*rasm al-ṣuwar ʿalā jihati al-tafʿīl*), the "project," one might say, of reality. Conversely, the knowledge that human beings can have of the forms that constitute the world is always a *passive* impression or design (*irtisām, rasm al-ṣuwar ʿalā jihati al-infiʿāl*). Even if it abstracts them from the senses, the human intellect *receives* the forms that correspond to the active thought of the celestial intelligences.

The basic lines of the Arabic theories of cognition are those of the Aristotelian tradition: sense experience is the first degree of knowledge, but it is also a degree that, if one is to achieve proper knowledge, must be surpassed. Sense experience gives access to knowledge; at the same time, since true and absolute knowledge is universal and intellectual, sense experience cannot be part of it. However, on the rise of elements of Greek thought, the Arabic philosophical tradition, starting with al-Fārābī, established some well-developed first principles that are conceived as a proper basis of knowledge. They take the form of rules (predicative elements to which one must assent: the principle of non-contradiction, for example, or the rules of geometry, such as that the whole is greater than the part), but also (in Ibn Sīnā) conceptual representations (existence, thing, necessity, and, in some texts, unity; *al-Ilāhiyyāt* I, 5; *R. fī aqsām al-ʿulūm al-ʿaqliyya*; Avicenna 1960: 30, 3–4; Avicenna 1908: 112, 13–15) and, rather problematically, they constitute the founding principles and the first actualizations of human knowledge. These principles, which can be defined *a priori*, are presented at times as innate, at times as the result of a first bestowal from the agent intellect, at still other times, ambiguously, as derived from experience (e.g. al-Fārābī 1985: 202, 6–204, 5, where the metaphor of light is used). Moreover, the very notion of them is aporetic: on the one hand, because they serve as the foundation for the

system of knowledge, these principles should not be part of it; on the other, since they are presented as the first actualization of human intellect, they are, in fact, the first moment of knowledge. As a whole, the theory of first principles seems to respond to the requirements of the absolute universality and necessity of knowledge. In fact, behind Aristotle and the whole tradition of his commentators, first in Late Antiquity and then in the Medieval Arabic world, is the Platonic theory of forms, by means of which philosophy had first attempted to solve the problem of the irreducible diversity between the variety of the sensible world and the uniqueness of truth.

One should, finally, mention the distinction between theoretical and practical intellect. In fact, in keeping with Aristotle's theory (*De anima* 3. 10, 433a14 and ff.; *Nicomachean Ethics* 6. 1, 1139a12 and ff.), Arabic authors invest the human intellect with both practical and theoretical dimensions. By connecting the former to a kind of knowledge by means of which human beings intervene *in the world*, and the latter to knowledge *of the world* only, they ascribe first principles to the practical intellect and link the development of the human intellect to its conjunction with the separate intellect, in both practical and theoretical modes (Druart 1997; Lizzini 2009). The logical development of all this in theoretical and practical terms goes so far at times as to touch upon the celestial world. Ibn Sīnā, for example, connects celestial souls to the practical intellect and the intelligences to the theoretical dimension of knowledge (e.g. Avicenna 1960: 9.2, 387, 4–7).

Al-Kindī and the First Theories

The history of Arabic theories of cognition and their interpretation of the agent intellect begins with the Arabic elaboration of the Neoplatonic writings attributed to the so-called circle of al-Kindī. As some scholars have shown (Geoffroy 2002), it is in the first *mīmar* of the pseudo-Aristotelian *Theology*, which is about the soul (*Fī l-nafs*), that al-Kindī first and al-Fārābī later found the key to interpreting, respectively, the Aristotelian doctrine of the soul and the intellect, and the *Treatise on the Intellect (Peri nou)* by Alexander of Aphrodisias, which itself was an interpretation of Aristotle (al-Fārābī probably did not have direct access to the Aristotelian text). Al-Kindī was the first author to write a *Letter* or *Epistle on the Intellect* (*Risāla fī l-ʿaql*; Jolivet 1971; Endress 1980; Ruffinengo 1997); his is an exegetical text in which, after the example of Aristotle's *De anima* and the treatises of Late Antiquity, he develops the doctrine of the degrees of human knowledge: intellect in potency, acquired intellect (*al-ʿaql al-mustafād*) and intellect in act filled with the forms received from the separate intellect (Jolivet 1971: 50–73; Endress 1994: 197). Intellectual knowledge is presented as substantially distinct from sensible knowledge. In contradistinction to the idea of continuity between sensible and intellectual knowledge, al-Kindī defines the senses and the intellect as two radically different ways of knowing, just as radically different as are their objects. Sensible reality is the object of the senses. True knowledge, however, is that which deals with immutable and eternal reality, which is independent of the laws of generation and corruption (d'Ancona 1999; Adamson 2007). Translated into Latin twice (as *De intellectu* and *De ratione*), the text had a certain success in the European Latin world.

Al-Fārābī

The intellectual development outlined by al-Fārābī, who ascribes a central role to abstraction, is better organized and more explicitly involved in the dynamics of emanation than al-Kindī's. Although a psychological analysis can be found in his major works as well—e.g. *The Perfect State*, *The Philosophy of Aristotle*—the *Epistle on the intellect* (*R. fī l-ʿaql*), also known as the *Treatise on the meanings of the intellect* (*Maqāla fī maʿānī al-ʿaql*), contains the clearest exposition. Here al-Fārābī's main focus is terminological: he intends to clarify how the term *ʿaql* is used and, consequently, how it should be understood. He presents not only strictly philosophical meanings—indeed, to a certain extent, his intent is to explain how the different philosophical uses of the term can be reconciled to each other—but also how the word is used in ordinary speech and rarefied theological language. Philosophically speaking, the meanings of *ʿaql* are categorized first according to the already mentioned distinction between practical and speculative intellect and, secondly, in relation to the various phases of development involved in the learning process. The intellect in potency (*al-ʿaql bi-l-quwwa*) is a part of the soul, or, more vaguely, a "thing" whose essence (*ḏāt*) is prepared or disposed (*muʿadda*, *mustaʿidda*) to abstract the forms of existing material things (al-Fārābī 1983: 12.6–8). Starting from a state of absolute potency, the intellect, as it responds to the stimuli supplied by experience, abstracts forms in so far as it is actualized by virtue of the action of the separate agent intellect, which can be identified with the tenth agent intelligence (see also al-Fārābī 1985: 203) and associated with the illuminative power of the sun (al-Fārābī 1985: 201).

The degree that—at least theoretically—corresponds to the first actualization and refinement of the human intellect is that of the intellect "in act," in which the intelligible forms of things constitute in act the object of intellection (al-Fārābī 1983: 15.3–10). In the so-called *Perfect State*, however, the first degree of the intellect is endued with the "first intelligibles": the first contents of truth, which al-Fārābī reduces for the most part to the principles of Euclidean geometry and Aristotelian logic (al-Fārābī 1985: 203–205). An essential element, however, arises from both of his descriptions: when they are actually realized in the soul, intelligibles have an existence (*wujūd*) that is neither the existence they had when they existed as forms in matter nor the existence to be ascribed to them in so far as they are themselves (al-Fārābī 1983: 16.6–8). The different ontological status attributed to forms as they are in the world and as intelligibles is relevant not only for the discussion about universals (and their existence *in re*, *post rem* and *ante rem*): the intellectual existence of intelligible forms highlights the role of the knowing subject. In fact, it is precisely the subject who plays a fundamental role in the explanation of the next degree of knowledge. The degree of acquired intellect (*al-ʿaql al-mustafād*) corresponds to the operation by which or the moment in which intelligibles, thanks to an act of reflection on the part of the subject, are understood to be identical to the subject who understands them (al-Fārābī 1983: 19, 6–20, 3) and who has, consequently, no need to look at the world in order to *know*. This subjective independence of the acquired status of knowledge explains, on the one hand, how the acquired intellect can express the status of the human intellect in the afterlife and, on the other, how its actuality is, in a sense, the realization in a human being of the agent intellect (Taylor 2006: 153–4).

Al-Fārābī's *Epistle*, at once a discussion of metaphysical cosmology (the separate intelligences), epistemology, and philosophical terminology (the real objects of investigation are the meanings—*ma'ānī*—of the term intellect), is based on Neoplatonic sources (Geoffroy 2002; d'Ancona 2008). At the same time, al-Fārābī adopts the Aristotelian idea of empiricism: the intellectual knowledge of separate substances is perfect, but abstractive knowledge—which is possible through the action of the separate agent intellect that activates human potential—is a necessary step in the quest for perfection. Al-Fārābī's *Epistle* also exerted some influence on the Latin world, not only in its Latin version, probably by Gundissalinus (Gilson 1929; Fidora 2003), but mainly through the *Long Commentary on the De Anima* by Ibn Rushd (Taylor 2006). An important element in al-Fārābī's theory of knowledge is imagination, which plays a special intermediate role between the senses and intellection. In *The Perfect State*, imagination makes possible a first abstraction and elaboration of sense data: it not only contributes to the formation of images for abstraction, it also explains the use of known intelligibles in the realm of sensible things (al-Fārābī 1985: 164–75). Moreover, human imaginative power represents an initial channel of communication with the divine world. Imagination is not limited to retaining and making use of a sense datum, at times combining it with other data, and even coming up with a new effect, different from their appearance in real life; it also imitates intellectual forms, endowing the essences of things with the form of sense impressions (al-Fārābī 1985: 211–27). Thus, according to al-Fārābī, prophecy can be considered as the perfection of imagination. The primacy of the intellect, however, remains intact: intellect is the only faculty capable of assessing the truth or falsity of imaginative representations and also how close they come to the original. In this respect, prophecy, restricted as it is to the imagination, is subordinate to the intellectual power of the philosopher, whose contact with the divine is on the rational level. Moreover, the absolute perfection of the human soul, as well as its true happiness, are to be found, according to al-Fārābī, in intellection—celestial life is, after all, intellectual—and even politics ultimately depends on the perfect intellection of the philosopher.

Ibn Sīnā

Ibn Sīnā's theory of cognition seems, even more than al-Fārābī's, to be suspended between Neoplatonism and Aristotelianism: although Ibn Sīnā insists on the Neoplatonic idea that intellection is the reception of and contact with the celestial dimension (*al-Nafs*; Avicenna 1959: 235, 7), he nevertheless assumes that he must explain the role of experience and sensation in terms of the Aristotelian tradition, taking into account, all the while, the definitions of the third book of the *De anima* (3.5). Hence man's intellect, considered in itself, is first of all potential and receptive. Its perfection, and therefore the ultimate perfection of the human being accessible to philosophers' souls in the afterlife, consists in receiving the forms of the entire universe and thus in becoming a separate intellect or an angel. The first elements of knowledge reside nevertheless in experience. In other words, knowledge proceeds by stages toward greater abstraction (*tajrīd*). This involves not only intellect, but also the various faculties of the soul that free the object of their perception from matter and its constraints (for intellectual abstraction: Avicenna 1959: 170, 188, 237).

Abstraction ensures both the universality and the truth of knowledge. Knowing means focusing on external reality, no longer in its changeable physical manifestations, but in its universal meanings (*ma'ānī*), i.e. the essences or forms of which it consists. Specifically, the gradation of human intellect—as laid out in the first *Treatise* of the *Book on the soul* (*al-Nafs*, I, 5; Avicenna 1959: 48–50)—begins with "absolute potency," then moves up to potency—which, being relatively near *act* as "possible" intellect, coincides with a first actualization—and ends with perfective potency (*al-quwwa al-kamāliyya*). Absolute potency is degree zero of intellectual knowledge and corresponds to "material intellect." The first degree of actualization coincides with the intellection of the first intelligibles, that is, of those notions, whether simple like concepts or complex like articulations of concepts that form the basis of all kinds of knowledge. At this degree of intellection, the human intellect is in a sense an intellect in act (*al-'aql bi-l fi'l*); it is, in fact, in act compared to the absolute potency of the previous state and is more properly *in habitu* (*bi-l-malaka*), because it already has a first form of knowledge. But the first real actualization of the human intellect arrives with perfective potency (*al-quwwa al-kamāliyya*), thanks to which the human intellect can be properly said to be "in act" (*al-'aql bi-l-fi'l*). But even in this state of actualization, the human intellect is not in act to the extent that it actually has intellection and grasps the forms and truth of things, but rather in that it is free to access intellection whenever it likes.

Intellection is the reception of forms, namely the conjunction with the agent principle, which, for Ibn Sīnā (as also for al-Fārābī), corresponds to the last heavenly intelligence. In other words, since it is basically receptive, the intellect "in act," if placed in relation to the next stage, may still in a way be called "intellect in potency" (*'aql bi-l-quwwa*). Ultimately, a state of true actuality can be attributed only to the intellect that actually knows, and Ibn Sīnā, harking back to the preceding exegetical tradition, calls it "acquired intellect" (*al-'aql al-mustafād*). This is the intelligible form that is present in the intellect and that the intellect considers to be in act, thus having intellection of it in act and having intellection of having intellection of it in act (Avicenna 1959: 50). Hence acquired intellect corresponds to the full actualization of the rational human soul; it is the state of the human intellect that, filled with the forms "received" from the separate intellect, is able to dwell on them consciously. Thus, while acquired intellect corresponds to the datum of intellection that is received and literally "acquired" from outside itself, it also expresses an exalted moment of the subject's activity of self-reflection, an element which was central in al-Fārābī's analysis as well. So the acquired intellect is not a fourth stage of the potency of the intellect but the moment of its full actualization. Therefore the cognitive dimension it represents has a fundamental function in Ibn Sīnā's anthropology as well as his eschatology: because it is a sign of the progressive perfectibility of the human soul, acquired intellect is in fact not only the complete actualization of human knowledge, but also the precondition, first, of man's true intellectual happiness, and, second, of his celestial intellectual life. For Ibn Sīnā, as for any Neoplatonic thinker, knowledge is the true way to communicate with the celestial world. To know is to draw on our own authentic intellectual dimension, which is also that of the divine world. In this sense, knowledge is also the main—if not the only—way to happiness (Avicenna 1960: 9, 7).

One of the most interesting elements of Ibn Sīnā's theory of knowledge—and one of the most important at the historical level—is the theory of the so-called "holy intellect" (*al-'aql al-qudsī*, see Avicenna 1959: 5, 6, or the "holy power," *al-quwwa al-qudsiyya*). As the ultimate perfection of the intellect (*in habitu*), and therefore the highest and most perfect degree of the human intellect, the holy intellect is essentially prophetic. It should be noted, however, that Ibn Sīnā does not thereby refer to a degree to be added to the gradation mentioned above, but to a quicker and readier way to achieve the maximum actualization of the human intellect, i.e. the intellect *in habitu*. The mind of a prophet is, indeed, directly connected to form, without the need of the mediation (i.e. preparation) normally represented by learning. In fact, while a human being usually actualizes his intellect only by means of a learning process (education and experience) that leads to the middle term and prepares the soul to receive the intelligible forms, in the exceptional case of prophets, reception occurs directly, without education, without experience. The "holy" intellect is, in other words, always ready (i.e. always already prepared or willing) to receive the intelligibles. But the doctrine of the holy intellect should not be understood as a theory that deals exclusively with prophecy. Ibn Sīnā explains not only the particular phenomenon of prophecy but, more generally, that of exceptional knowledge. The exceptionality of prophecy is included in the category of knowledge and integrated into anthropology (prophets are bracketed, in fact, with philosophers). Moreover, a key notion in interpreting the holy intellect is the Greek *eustochia*, the faculty that in Aristotle explains the extraordinary intuitive ability of certain people. The same exceptional knowledge that in prophets is defined as revelation is, in human beings who are endowed with *ḥads*, mere intuition, or immediate apprehension of the syllogism's middle term (Gutas 2001 and cf. 1988).

A critical point is the real role played by abstraction in a context that seems to be dominated by emanation and therefore reception of intelligible forms (Davidson 1972, 1992; Jabre 1984; Rahman 1958; Hasse 2000, 2001; McGinnis 2007). Actually, the idea of conjunction with the agent intellect reveals the aporetic character of Ibn Sīnā's theory of knowledge. On the one hand, sensible knowledge and experience play a significant role in preparing the intellect to receive forms: human theoretical intellect achieves its first actualization through the first abstraction of sensible knowledge; moreover, forms become increasingly abstract as one moves from the imaginative to the intellectual dimension (Avicenna 1985a: 220–2; Avicenna 1985b: 372–3). On the other hand, understanding seems to depend on the conjunction with the separate celestial intellect, as is evident in the case of the holy intellect and more generally with intuition, which is unrelated to any prior sensation, experience or education. In short, it is difficult to understand if intelligible forms are the result of an abstractive operation (*taǧrīd*). Perception, imagination and the estimative faculty capture a more or less abstract form or essence (Sebti 2005). The continuity between perception and intellection is, however, diminished by a fundamental difference between sensation and intellection: intellection grasps the core of the thing, while sensation stops at its outward appearance (Avicenna 1960: 8, 7, 369, 11–13). Intellection leads to a totally different dimension from that of sense-perception: it "sees," so to speak, essences and is realized by means of an act that depends on the higher dimension of the agent intellect, "the giver of intellect" that enlightens (*ishrāq*) the human mind as the sun

does the eyes. As is evident, however, while intellection is nothing but conjunction with the separate intellect and reception of intellectual forms (*ṣuwar 'aqliyya*), abstraction, instead, reveals a state of the intellectual or intellected forms "given" by the superior intelligence and "received" by the human intellect, rather than an operation of human intelligence. But is this interpretation—the traditional account—satisfactory? Certainly it fails to account for all the passages in which Ibn Sīnā indicates sensation and experience as a route to knowledge, also making explicit use of the term "abstraction" (*taǧrīd*: *Najāt* ed. Fakhry: 218, 6; *Ilāh.*: 5, 1, 205). Scholars have therefore advocated an alternative explanation, claiming a real role for abstraction and insisting on the philosophical evolution of Ibn Sīnā's thought (Gutas 2001; Hasse 2000, 2001). Dimitri Gutas, for example, finds in the mature period of Ibn Sīnā's philosophy (corresponding to such texts as the *Kitāb al-Ishārāt, al-Nafs al-nāṭiqa* and, at least in part, *Kitāb al-Mubāḥaṭāt*), a theory in which the separate intellect is not the efficient cause of human intellection, but a kind of condition or exemplary cause: according to this reading, separate intellect is a sort of place for intelligibles, which could be stored neither in the human body nor in the human intellect; thus, at the same time it is a guarantee for human intellection: we are able to think because there is a mind that thinks in act "and in this sense the thoughts emanate from it in us" (Gutas 2001: 29–30). Emanation must therefore be activated by human thought that passes through the different degrees of abstraction related to the various faculties of the human soul. Dag Nikolaus Hasse, who also insists on the evolution of Ibn Sīnā's thought, recognizes a real theory of abstraction in Ibn Sīnā, which is fully defined in the *Ishārāt*, the *Book of indications* (Hasse 2001: 64). Lastly, a new interpretation has been proposed by Jon McGinnis (2007): the subject of our scientific representations (the idea of a horse) does not match the pure essence of what we know (the horse), but adds to it the quantitative predicate of universality. According to McGinnis, this predicate (like other intellectual accidents such as being a predicate, etc.) is what the separate intellect emanates upon the human intellectual power. So human intellect "abstracts" the essence from the cognitive material offered by sense experience. Abstraction is a sort of selective attention that leads to the intellect's dwelling on the essence of the thing. The intellectual accidents without which true knowledge would be impossible (that is, the predicates of universality, particularity, etc.) derive from emanation: they are the "intellectualizing forms" (*al-ṣuwar al-'aqliyya*) bestowed by the Principle (for the intellection of non-existent things, see Black 1997; Michot 1985). All interpretations are based on Ibn Sīnā's texts and philosophical lexicon, which include both emanation and abstraction. In this sense, Ibn Sīnā's theory of knowledge cannot avoid the dichotomy and aporia that define it. Apart from the question of the historical development of the doctrine, abstraction reveals a difficulty that affects the whole Avicennian system: on the one hand, there is the fundamental principle of emanation; on the other, the appropriate preparation for it as well as its reception.

Conclusion

Aristotle's text—from which the Arabic epistemological doctrines are clearly derived—is difficult and to a certain extent ambiguous: the active intellect is the prerequisite of

actualization of the intellect in potency, but the latter too is impassible. It can be reasonably stated that all the authors of the Arabic tradition derive the universality of knowledge from the separate intellect; the cognitive process is always conceived as a progression towards pure and abstract knowledge—and the term "intellect" itself is a keyword in describing the relationship between the human and celestial or divine dimensions; differences among the authors are related to the explanation of the process in its details and/or the role of the possible intellect and imagination and, of course, to the sources they use. The great vexed questions in Arabic epistemology are the result of its straddling the border between Aristotelianism and Neoplatonism; they involve both the definition of the human soul and subjectivity and man's relationship to experience and knowledge gained through the senses (abstraction, first intelligibles). With his doctrine of the "unique intellect," which he worked on throughout his life, Ibn Rushd attempted to resolve the ambiguity of Aristotle's text (see here R. C. Taylor's chapter in this book) and introduced new elements in the speculation about knowledge, the subject of knowledge and the *visio beatifica* (Taylor 2004, 2011; Jolivet 1991; Brenet 2003, 2011).

All Islamic Medieval theories of cognition are linked to the idea of the communication of truth and the specific anthropology it implies. This is evident, although also different, in the metaphysical-political theory of al-Fārābī, in Ibn Sīnā's theory of imaginative language and eschatology and in Ibn Rushd's theory of truth communication: only very few human beings, "demonstrative people" or philosophers, have innate dispositions that enable them to grasp the truth (*The Decisive Treatise* is in this respect a fundamental work: Taylor 2000; de Libera 2002).

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